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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,385	07/11/2003	Chih-Yeh Chao	BHT-3215-35	2219

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Troxell Law Office PLLC
Suite 1404
5205 Leesburg Pike
Falls Church, VA 22041

EXAMINER	
YEE, DEBORAH	

ART UNIT	PAPER NUMBER
1742	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/617,385	CHIH-YEH CHAO	
	Examiner	Art Unit	
	Deborah Yee	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 11 July 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 5, lines 8 to 10 states that alloys from code 1 to 10 listed in Table 5 are practicable embodiments having compositions within ranges of the present invention, and alloys from code 11 to 20 are used for comparison . This is an inaccurate statement because alloys from code 1 to 3,6 and 7 do not contain Cr and therefore not representative of applicant's claim 1 which requires 5 to 7% Cr . Moreover alloy of Code 1 is representative of the present invention yet fails the Salt spray test in Table 6. Also it states on page 12, line 22, that alloy of code 20 successfully underwent 48-hour spray test yet table 6 indicates failure.

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1 to 5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 3 of U.S. Patent No. 6,617,050. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both disclose a low density iron based alloy for golf club head having the same composition and are processed by hot forging to provide a surface roughness of not more than 3 microns. Even though the claims of US Patent '050 recite the additional limitation of forging to form an entire head of a golf club, such limitation merely states the obvious for the pending claims 1 to 5.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1 to 3 and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by Derwent publication 2003-491584.

6. The Derwent publication in Table 5 on page 10 discloses low-density iron based material for a golf head having a composition which meets the recited claims 1 to 3 and 5. See alloys 5 and 8 to 10 in Table 5 on page 10. Also alloys are plastically deform and have surface roughness of less than 3 microns as shown in Table 6 on page 10.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Wan (US Patent 4,975,335).

8. Wan discloses example 9 in column 7 and example 2 in column 4 that meet the compositional limitations recited by claim 1. Even though prior art does not teach an iron alloy for golf club head as recited by claim 1, such would not be a patentable difference since it is merely applicant's future and intended use.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1 to 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wan (US Patent 4,975,335)

11. Wan'335 discloses example 9 in column 7 and example 2 in column 4 which meets the claimed composition except fails to include Si, Ti and Mo. These elements, however, would be obvious to incorporate because they are taught by Wan in claims 3 and 4 of columns 8-9 as additional alloying elements in wt% ranges which overlap those recited by the claims. Note that such overlap establishes a prima facie case of obvious because it would be obvious to one of ordinary skill in the art to select the claimed alloy ranges from the broader disclosure of the prior art since the prior art has similar properties, such as corrosion resistance, see MPEP 2144.05

12. Prior art example 2 meets claim 4 except contains 1.2% Mo which is slightly higher than the claimed range of 0.5 to 1%Mo. Since applicant has not demonstrated criticality of the Mo range (e.g. by comparative test data), then a composition with 1.0%Mo vs a composition with slightly more (say 1.2%) Mo would depict a mere difference in the proportion of element without any attendant unexpected results, and hence would not patentably distinguish claims over prior art. Moreover prior art in claim 3 of column 8 teaches a broad Mo range of up to 4.0% that encompasses applicant's Mo range of 0.5 to 1%.

13. Also Wan'335 in claims 1 and 4 of columns 8- 9 teaches up to 3.5%Ti and up to 2.5%Si that overlap with applicant's 2 to 5%Ti and 0.8 to 1.5%Si. To distinguish claims over prior art, applicant will need to demonstrate that the more narrowly claimed alloy ranges are somehow critical and productive of new and unexpected results.

14. In regard to claim 5, Wan'335 on lines 39 to 45 of column 3 teaches hot working (equivalent to hot forging). The surface roughness of 2.4 to 3 microns recited by claim 5 would be expected since prior art closely meets the claimed composition and process limitation.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Derwent publication 2003-491584.

16. Derwent publication alloy meets the composition of claim 4 for the reasons set forth in paragraph 6 except fails to include 0.5 to 1% Mo. It is well known in the art and further substantiated by the ASM publication that Mo is a common additive in steel to further enhance hardness, strength and corrosion resistance. Since these properties

are desired and sought for golf head application, then it would an obvious modification and a matter of routine optimization well within the skill of the artisan to add small amount of Mo to the Derwent alloy to produce no more than then known and expected effects of such an addition.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Deborah Yee
Primary Examiner
Art Unit 1742

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